

In the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of diagnosing a pathological condition of a patient's body tissue, the method comprising: determining the presence or severity of ischaemia in the a tissue, ~~the method comprising the steps of~~ by inserting a pH sensor into the tissue, and directly measuring the intracompartmental pH in the tissue, and using the intracompartmental pH measurement to diagnose the pathological condition.
2. (original) A method as claimed in claim 1, wherein the tissue is muscle.
3. (previously presented) A method as claimed in claim 1, wherein a second sensor is used to measure the intracompartmental pressure in the tissue.
4. (previously presented) A method as claimed in claim 1, wherein the sensor is mounted on a catheter.
5. (previously presented) A method as claimed in claim 4, wherein the catheter is inserted into the muscle through a cannula.
6. (previously presented) A method as claimed in claim 5, wherein the cannula is inserted into skeletal muscle in an orientation that is generally parallel to the muscle fibres.
7. (previously presented) A method as claimed in claim 5, wherein the tissue is adjacent to a bone fracture, and wherein the cannula is inserted into the muscle adjacent to, but not communicating with, the fracture site.

8. (previously presented) A method as claimed in claim 1, wherein the reading from the sensor is compared with a calibrated scale to determine the extent of tissue damage.
9. (currently amended) A method as claimed in claim 1, wherein the pathological condition ischaemia involves is Acute Compartment Syndrome.
10. (cancelled)
11. (currently amended) A method as claimed in claim 1, wherein the ischaemia involves a shock selected from the group consisting of septic ~~septic~~ shock, neurogenic shock, cardiogenic shock, and hypovolaemic shock.
- 12-23 (cancelled)